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AN ACCOUNTING OF GENERAL VALUES IN THE SMALL HIGH-SCHOOL CURRICULUM¹

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INTRODUCTION

To construct a curriculum in accordance with best current practice requires a careful survey of the needs of the situation to be served by that curriculum, a determination of which of those needs are adequately served by elements of the situation itself, a weighting of the relative values of the needs that lack service, an accounting of educational tools available, and finally, the adjustment of these tools, together with the new tools found necessary, into the curriculum.

In dealing with direct value subjects like manual training, this method of curriculum construction may be easily followed. An excellent example of this is shown in the Indiana vocational survey of 1917. The success of this type of survey lies in the fact that every act in an industrial process can be catalogued and that, in preparing the educational tool to develop a desired skill, all the experience of the industry is available. Similarly, in the preparatory subjects, the demand of the higher school is definite and easily followed.

When the end desired does not directly suggest the educational means to be employed, the method is not so easily followed. Means have not been developed for tracing the influence of school activities toward the development of habits making for such general values as good-will, harmless enjoyment, and the like. Therefore, when we come to the point of weighting our school subjects for these effects, we are driven back either upon personal experience or

¹ Dr. H. G. Childs furnished many suggestions valuable in the preparation of this article.

educational theory—both rather questionable bases for scientific curriculum-building.

The general type of values is the more common in the small high-school curriculum. Where but one course can be offered, every subject in that course should have the highest possible general values. Even a direct value subject should be developed to its highest consistent possibilities as a general value subject, inasmuch as its direct value effect necessarily influences but few of those who are subjected to it. An examination of the occupation expectancy of any group taking a direct value subject in a small high school would demonstrate this fact.

In considering the curriculum of the ten township high schools in Wabash County, Indiana, the writers were confronted with the necessity of handling the situation in this indefinite manner. These schools are typical Indiana township high schools of the commissioned grade; their average enrolment is about fifty pupils; the number of teachers giving full time to high school work, two to five. With little differentiation possible in subject-matter, the courses are necessarily taught as general development subjects, except in such cases as commercial arithmetic, in which the direction for motivation is very obvious.

Since the writers realized that the accounting must be largely of opinion, they attempted to obtain the consensus of opinion of individuals who had experienced the curriculum in the schools concerned, with the hope that a survey of such opinions might (1) point out possibilities in general values that would otherwise escape notice and (2) give a weighting of values that would serve as a working basis in the readjustment of the curriculum and in the motivation of aims for the various subjects.

DISCUSSION OF METHOD

To obtain this consensus of opinion the questionnaire and rating chart discussed below were sent, during the winter of 1916-17, to the 874 graduates of the ten township high schools. Returns were received from 139 teachers, 10 farmers, 16 home-makers, and 18 others—preachers, doctors, bookkeepers, and students. The large representation of teachers is due to the fact that a part

of a township teachers' institute was given over to making out the reports desired.

The influences given for rating comprised practically all of the recognized school influences that have been operative in the schools dealt with. The values in terms of which the ratings are made are those adapted from Thorndike by Parker.¹ Since in many ways the work of the high school is inseparable from that of the seventh and eighth grades, these were considered as part of the high school.

The questionnaire consisted of the following questions and directions:

1. What occupation have you followed since leaving high school? (Please account for the entire time. If a woman and married, indicate that fact.)
2. What occupation are you now following?
3. Is there any possibility of your leaving that occupation in the near future? If so, for what? In the remote future? If so, for what?
4. If you were to have it to do over, how would you spend the four years you spent in high school?
5. When were you graduated from high school?
6. In what subjects, during the course, if any, did you fail?
7. What was the cause of this?
8. In what common-school grades, if any, did you have to spend more than one year?
9. What subject (or other cause) was the cause of this?

This served as the basis for the classification of the data received from both the questionnaire and rating chart into the various groupings used in checking for possible inordinate influences of recent or remote time of graduation and satisfaction or dissatisfaction with occupation.

The rating chart is given on pages 122-23. In this chart the rating method was used rather than the usual ranking method in order that, by taking horizontal and vertical summations of the various judgments, an approximation to the total values of the various influences might be found in the former case and of the total

¹ S. C. Parker, *Methods of Teaching in High Schools*, p. 16.

CHART FOR RATING THE EFFECTS OF

Number		VALUES					
Ranking in order of value	Importance in life						
	Emphasis in School						
		ECONOMICS: Habits making for success from the money standpoint. Ability to make and handle money to advantage. Some of the characteristics concerned are good work habits, aggressiveness, ability for organization, and persistence.					
		HABITS OF HARMLESS ENJOYMENT: Harmless habits for the use of leisure.					
		CITIZENSHIP—Ability to enter intelligently into civic life; ability to vote intelligently (whether man or woman); ability to see the good of the state as a bigger thing than good of the individual or party.					
		HOME-MAKING—Fitness for leadership in the family. Appreciation for home life. Ability to make the "home beautiful" at the minimum cost.					
		GOOD-WILL—Appreciation of people, life, etc. Willingness to help the other fellow carry his load. Sympathy with the creeds of others.					
	Literature	10					
	History of Literature						
	Algebra						
	Geometry						
	Com. Arithmetic						
	Other influences as listed in Table III—30 in all.						
FOURTH STEP In the blank below opposite each value write that thing that has had the greatest influence in developing that value, whether it be in or out of school.							

HIGH-SCHOOL INFLUENCES ON LIFE VALUES

DIRECTIONS

TAKE ONE STEP AT A TIME

At the left are listed influences that would not have affected you had you not taken work beyond the sixth grade. Blanks are left in which you can write any other influences of which you may think. At the top are listed the five general life values. Opposite each influence there is a blank for each value in which the rated effect of the influence on the development of the given value is to be placed according to the following directions:

First step.—Note that the effect of "Literature" on "Good-Will" has been given a rating of 10.

With this as a standard, rate the effects of "Literature" on each of the other four values, placing the rating in the correct blank space in each case. For example, if the effect of "Literature" on "Home-Making" is twice* its effect on "Good-Will," give this a rating of 20 (2×10);* if the effect of "Literature" on "Citizenship" is $\frac{1}{2}$ * its effect on "Good-Will" give this a rating of 5 ($\frac{1}{2} \times 10$)*, etc.

Second step.—Now again taking your rating of the effect of "Literature" on "Good-Will" as a basis, rate all the other influences affecting the "Good-Will" values. If the effect of "Latin" on "Good-Will" say, is twice* that of "Literature" on "Good-Will," give it twice the rating (2×10 , or 20);* if the effect of "U.S. History" on "Good-Will" is 1-5 as great as that of "Literature" give it 1-5 as great rating ($1-5 \times 10$, or 2);* and so on for each influence.

Third step.—Now taking the influence of "Literature" on "Home-Making" as a standard, rate all the influences affecting "Home-Making." Hypothetically in the first step we have rated the effect of "Literature" on "Home-Making" as 20.* If we should consider the effect of "Algebra" on "Home-Making" $\frac{1}{4}$ * that of "Literature" on "Home-Making" we would then rate it $\frac{1}{4}$ * of 20 or 5*. Do likewise for each of the remaining three values, making the rating of each influence on each value on the basis of the rating you gave "Literature" as an influence on that value in the "First Step" above.**

Fourth step.—See instructions below "Influences."

Fifth step.—On the line marked "Importance in Life" rate the values given as to their importance in life in general. Give the most important value "10" and rate the others accordingly: i.e., one one-half as important, 5, etc.

Sixth step.—On the line marked "Emphasis in School" place an (X) above each value that you consider overemphasized in your school life and an (O) above each underemphasized.

Seventh step.—In the vertical column with the caption "Ranking in Order of Value" rank (not rate) the influences in the order of their importance as you see it. Give the most important "1," the next "2," the next "3,"—the 20th in importance, 20, etc.

Eighth step.—Draw a heavy line through each influence that you think has not or probably will not repay you for the effort it cost. Analyze your experience carefully. It is your experience that is wanted. Do not fail to consider all the life values fairly.

* Your rating will probably be other than this. Neither this nor any succeeding number used as an illustration is necessarily indicative of the true relations existing between the effects you are to rate.

** If you have carried these three steps out fully, each of the five spaces at the right of each influence that has been effective in your life will contain a rating. There should be no blanks except after influences which were in no way effective in your life. Such an influence, for instance, would be a subject you didn't study in high school.

development of the various social values in the latter. Since the nature of the method has considerable bearing upon the interpretation given the data, the basic points with their significance are discussed below.

First, it should be noted that the manner of rating makes all ratings of the individual refer back to the 10 given as the rating of the influence of literature on the development of good-will, each being the product of some factor and the base 10. The ratings for a given individual are therefore comparable, although the fact that the base 10 does not necessarily have the same meaning for any two individuals prohibits comparison of scores of different individuals. That it does not prohibit comparison by groups may be shown as follows:

The central tendency (mean) of the ratings for any effect as actually found may be expressed as

$$\text{Mean} = \frac{\Sigma(10 \cdot \text{Valuation Ratio})}{N} \quad (1)$$

in which 10 is the basic rating of the effect of literature on good-will, N is the number of individuals, and the valuation ratio is the number by which the basic rating must be multiplied to give the desired rating to the given effect. However, if we were to use absolute individual values for the rating of the effect of literature on good-will as a basis, if such values could be measured, our mean would be expressed as,

$$\text{Mean} = \frac{\Sigma(\text{True Basic Value} \cdot \text{Valuation Ratio})}{N}. \quad (2)$$

But (1) may be derived from this in the following manner:

Grouping like valuation ratios as $R_u, R_v, \dots R_z$, (2) may be written,

$$\text{Mean} = \frac{\Sigma(T_u \cdot R_u) + \Sigma(T_v \cdot R_v) + \dots + \Sigma(T_z \cdot R_z)}{N}, \quad (3)$$

$T_u, T_v, \dots T_z$ being the true basic valuations used by individuals giving valuation ratios of $R_u, R_v, \dots R_z$ respectively.

Now let $a, b, \dots f$ be the numbers of individuals giving the valuation ratios $R_u, R_v, \dots R_z$ respectively. Then (3) may be written,

$$\text{Mean} = \frac{\frac{\sum T_u \cdot a \cdot R_u}{a} + \frac{\sum T_v \cdot b \cdot R_v}{b} + \dots + \frac{\sum T_z \cdot f \cdot R_z}{f}}{N}. \quad (4)$$

But defining the basic 10 given in the chart as the rating of the effect of literature on good-will as the central tendency of all the true ratings of the influence of literature on good-will, and assuming that the distribution of variations from this central tendency, if they could be measured, would be symmetrical, the true values for all those giving the chosen effect the same weighting would array themselves symmetrically about the central tendency, or 10. Therefore (4) may be written,

$$\begin{aligned} \text{Mean} &= \frac{10 \cdot a \cdot R_u + 10 \cdot b \cdot R_v + \dots + 10 \cdot f \cdot R_z}{N} \\ &= \frac{10 \cdot \Sigma \text{Valuation Ratio}}{N} \\ &= \frac{\Sigma (10 \cdot \text{Valuation Ratio})}{N}, \end{aligned} \quad (5)$$

which is identical with (1).

The fact that the life-values used do not have mutually exclusive division seems at first glance to introduce an error. Since they are not elemental, some influence may affect the same element in two or more of them, thus seemingly having too great an influence on the total. This objection may be cleared away by calling attention to the fact that credit thus seemingly counted twice or oftener is really credit for different types of influence and therefore the influence rated does not have undue effect.

To check up the rating method used, the contributors were asked to rank the influences according to their values as wholes. The median rankings derived from these were compared with the median ratings given by the same group of sixty men (all men who submitted rankings) by means of the Spearman formula, giving a positive coefficient of correlation of .83, a very favorable result.

To check for possible inordinate influence of such factors as time of graduation and occupational expectancy, the data for both

men and women teachers separately were classified as follows (two sex groups for each):

1. Those expecting to leave present profession who were graduated before 1910.
2. Those expecting to leave present profession who were graduated in 1910 or later.
3. Those expecting to remain in present work who were graduated before 1910.
4. Those expecting to remain in present work who were graduated in 1910 or later.

Graphs of total development of the life-values for these groups showed that no group had had an inordinate amount of influence in the totals used in this study. The results may, therefore, be considered unbiased by these factors.

Though the effect is accounted for in the defined purpose of this study and does not therefore properly enter into a discussion of dependability here, it may be well to grant that the factor of personal judgment is necessarily large in this situation and lowers the quantitative dependability of the data.

TREATMENT OF DATA

The consensus of opinion as to the needs of the situation investigated is presented in Tables I and II. In general, these tables seem to indicate that in addition to a general dissatisfaction with the situation as served in the past, there is a feeling of need of more relative emphasis on home-making, enjoyment, and citizenship values, the need for emphasis on home-making being most marked. Particular need is expressed by men teachers for more emphasis on good-will, while this group feels less need for emphasis on enjoyment values. All groups of women show very high dissatisfaction with the development of home-making values; women teachers place need for good-will development relatively on a par with home-making values, while they place less emphasis on economic values than other groups.

Tables III and IV give the summarized weighting of the influences active in the schools in the past according to the consensus of opinion of the same groups. Table III gives the averages

TABLE I
JUDGMENTS OF RELATIVE EMPHASIS OF SOCIAL VALUES BY THE
HIGH-SCHOOL CURRICULUM*

	GOOD- WILL HABITS	HOME- MAKING HABITS	CITIZEN- SHIP HABITS	ENJOY- MENT HABITS	ECONOMIC HABITS
	Percentages				
All Contributors					
Too little emphasis.....	60	81	54	51	43
Satisfactory.....	34	12	34	31	25
Too great.....	6	7	12	18	32
Mean of occupation groups					
Too little emphasis.....	55	81	55	54	44
Satisfactory.....	35	14	33	28	29
Too great.....	10	4	11	18	27
All men					
Too little emphasis.....	63	82	58	52	52
Satisfactory.....	28	9	25	23	14
Too great.....	9	9	17	25	34
All women					
Too little emphasis.....	57	80	50	50	38
Satisfactory.....	39	14	40	35	31
Too great.....	4	6	10	15	31

*This table should be read as follows: 60 per cent of all contributors judged that good-will development had received too little emphasis in the curriculum, whereas 34 per cent judged that it had received satisfactory emphasis, and 6 per cent that it had received too great emphasis. This table was developed from step 6 of the rating chart.

TABLE II
INDEPENDENT RATINGS OF THE RELATIVE IMPORTANCE OF SOCIAL VALUES COMPARED
TO THE DEVELOPMENT OF THE SAME BY THE CURRICULUM AS INDICATED
BY THE VERTICAL TOTALS IN THE TABLES*

	GOOD-WILL HABITS		HOME- MAKING HABITS		CITIZENSHIP HABITS		ENJOYMENT HABITS		ECONOMIC HABITS	
	Independent Ratings	Average Development	Independent Ratings	Average Development	Independent Ratings	Average Development	Independent Ratings	Average Development	Independent Ratings	Average Development
All contributors.....	10	10	10	8.5	10	10	6	8	9	7
All men.....	10	10	10	9	11	11	6	8	9	8
All women.....	10	10	10	9	10	10	7	8	8	7
Farmers (men).....	10	10	13	10	13	12	5	10	9	8
Men teachers.....	10	10	10	8	10	10	5.5	7	9	8
Unclassified men.....	10	10	13	9	12.5	10	6.5	8	10	12
Home-makers (women)....	10	10	11	10	10	10	7.5	9	10	9
Women teachers.....	10	10	10	8	10	10	7	8	8	6
Unclassified women.....	10	10	10	6	9	7.5	5.5	8	9	5
Group mean.....	10	10	11	8.7	10.7	10	6.2	8.3	9.2	8

*This table should be read as follows: According to the independent ratings of all contributors, enjoyment-habit development is just six-tenths as important as good-will development (independent ratings were obtained from step 5 on the rating chart). According to the ratings of influences as they totaled for these values for all contributors (Table III), enjoyment habits received eight-tenths the development that good-will received from the curriculum.

of the median ratings of the six occupation groups for each value; the total valuation of each influence (line totals); and total development of each value caused by the regular subjects, that caused

TABLE III
THE AVERAGES OF THE MEDIANS OF THE SIX OCCUPATION GROUPS*

	Good-Will Habits	Home- Making Habits	Citizenship Habits	Enjoyment Habits	Economic Habits	Total Value
Subjects Taught						
Literature.....	10	10	12	9.5	6	47.5
History of Literature....	8.5	7	8.5	6	4.5	34.5
Algebra.....	2.5	3.5	3.5	2	8.5	20
Geometry.....	2.5	3.5	3.5	2	9	20.5
Commercial Arithmetic..	3.5	6.5	7	2.5	17	36.5
Latin.....	3.5	3.5	4	3	4.5	18.5
English Grammar.....	6	7	8.5	5.5	7	34
Composition.....	7	6	4	5	6	28
General History(Ancient, Mediaeval, Modern)...	11	6.5	14	6.5	5	43
U.S. History.....	12	8.5	19.5	6	6	52
Civics.....	11	7.5	22.5	6.5	6	53.5
Physiology.....	7	10	4	7	6	34
Botany.....	5.5	6.5	4	7	4	27
Physical Geography.....	5	5	4.5	4	3.5	22
Manual Training.....	7	16	5	9	12	49
Domestic Science.....	8	20	5	5	10	48
Physics.....	4	4.5	4	3	6	21.5
Geography.....	6.5	5.5	5.5	4.5	4.5	26.5
Art.....	6	13	4	9	3	35
Music.....	8	9.5	4	13	3	37.5
Other Influences						
Opening Exercises.....	8	4.5	5	6	2.5	26
Association with Students	18	10	10.5	11.5	7	57
Association with Teachers	17	8	11	11	7	54
Social Affairs.....	12	10	9	14	6	51
Athletics.....	11	6	5.5	17	5.5	45
Grading System.....	5.5	3	3.5	2.5	3.5	18
System of School Gov- ernment.....	7	6.5	9.5	2.5	4	29.5
Recitation System.....	5.5	3.5	5	3	2.5	19.5
Debating.....	5	3	7	4.5	4	23.5
Scholarship Contests....	5.5	4	7.5	5	4	26
Total for Subjects....	134.5	159.5	147	116	131.5	688.5
Total for By-Products..	94.5	58.5	73.5	77	46	349.5
Total.....	229	218	220.5	193	177.5	1,038

*This table should be read as follows: The value of literature as a developer of good-will is 10; the total value of literature is 47½. Of the 1,038 points given various influences, 229 were given as developing good-will. Of the 218 points affecting home-making, 159½ came from regular subjects and 58½ from extra-curricular activities.

by extra-curricular activities, and that caused by the two combined. Upon the comparative values in this table recommenda-

tions as to motivation are based; upon the values given as line totals judgments of influences as to gross value are based; upon the column totals are based judgments as to the relative development in the past of the various values. Table IV shows the time

TABLE IV
UNITS VALUE RECEIVED PER UNIT TIME SPENT BY STUDENT*

Estimated Years Given Subject over Period Covered		Farmers (Men)	Men Teachers	Unclassified Men	Home-Makers	Women Teachers	Unclassified Women	Mean Value
3	Literature.....	3.5	3.0	3.0	4.0	3.3	2.5	3.2
1	History of Literature....	8.0	5.8	7.8	8.2	6.6	5.1	6.9
1 1/2	Algebra.....	3.8	2.7	2.8	3.0	2.3	1.5	2.7
1 1/2	Geometry.....	5.0	2.9	2.4	2.8	2.0	1.2	2.7
2	Commercial Arithmetic...	20.0	13.8	13.4	16.0	14.4	10.4	14.7
2 1/2	Latin.....	1.8	1.4	1.4	2.2	1.2	.7	1.5
2	English Grammar.....	4.3	2.9	4.6	3.0	3.2	2.7	3.5
2	Composition.....	3.8	2.8	4.4	2.8	2.6	2.5	3.1
2	General History (Ancient, Mediaeval, Modern)...	5.8	4.0	5.6	3.8	4.0	2.7	4.3
2 1/2	U.S. History.....	4.3	3.7	4.8	3.5	3.5	2.8	3.8
2 1/2	Civics.....	24.6	18.4	25.2	18.6	22.0	19.0	21.3
2 1/2	Physiology.....	15.0	14.4	17.2	19.6	14.0	4.4	14.1
2 1/2	Botany.....	12.4	8.8	9.6	16.0	8.0	10.4	10.9
2 1/2	Physical Geography.....	11.8	7.8	8.3	11.2	8.4	5.2	8.8
2 1/2	Manual Training or Do- mestic Science.....	32.5	9.8	16.8	19.2	19.6
1	Physics.....	6.5	4.2	6.5	3.7	2.4	4.7
1	Geography.....	6.4	5.1	6.9	5.0	4.0	5.0	5.4
1 1/2	Art.....	28.0	18.0	28.0	41.6	29.2	25.0	28.3
1 1/2	Music.....	32.0	25.2	27.2	33.2	43.2	21.0	30.3
.....	Median Units Value.....	6.5	5.1	6.9	4.5	4.0	4.4	4.7

* This table should be read as follows: Farmers received 3.5 units value for each unit time spent in the study of literature. A year given to a subject (left-hand column) means the equivalent of 5 recitation periods per week for one year. In computing the units value per unit time, 5 times the number of years was used as the time unit.

in years given the regular subjects during the period of time covered by this report, and the comparative units of value received by the various occupation groups per unit time given each subject. These data serve as a basis for the recommendations made as to changes in time allotment.

We now have before us in Tables I and II a survey of needs of the school situation in terms of desired weighting of values compared to the development of those values in the past. Further,

we have in Tables III and IV data for guiding time adjustments, eliminations, and specific motivation so as to bring about both the desired emphasis of values and a greater total return from the curriculum.

However, in making these adjustments certain difficulties arise. Since we have no assurance that a change in time would carry with it a proportionate change in value received, the adjustment of time must follow a cut-and-try method, regardless of the degree of dependability of the data at hand. We must therefore make time adjustments only after careful consideration of possible causes of development of the type of values affected. This should involve much experimenting to discover why subjects do not develop the qualities they have been supposed to develop and why they seem to develop unexpected values. For example, take the case of geography which does not seem to be a developer of good-will, contrary to what has been generally supposed, or that of geometry and algebra which seem to have appealed to the people rating them as developers of economic habits, or that of English composition which seems to have only about half the effect in developing citizenship habits that English grammar has. It would hardly be advisable to discard such phenomena with the conclusion, for instance, that people, generally thinking of mathematics as practical, place high economic rating on algebra and geometry, nor should the conclusion be that the phenomenon is one of chance, though either might prove to be the cause in the given case. Other possibilities that might be revealed by actual investigation should be given an opportunity to present themselves.

For making the adjustments, to bring to bear the three factors, relative total value, relative cost per unit time value, and tendency toward the development of some values more than others, all the subjects were grouped as follows: (1) Subjects of high cost (greater than median cost, Table IV) and low value (median or less total value, Table III), which show no tendency to develop one or two values in a marked manner. (2) Those showing such special tendency. (3) Subjects of low cost (median or less cost) and low value not showing this special tendency. (4) Those showing this special tendency. (5) Subjects of high cost and high value (greater

than median total value) not showing this special tendency. (6) Those showing this special tendency. (7) Low cost, high value subjects showing no special tendency. (8) Those showing special tendency. The following procedure was determined upon for these groups: Groups 1 and 3 should be eliminated. Subjects in group 2 should be organized on basis of their tendency to develop certain values,¹ the time being shortened to the proportions that such organization would seem to justify.

Subjects in group 4 should be analyzed for the causes of such special tendencies as are indicated and motivated along those lines to the exclusion of other purposes. Those in group 5 should be analyzed for the causes giving the indicated results and the time shortened if this can be done without destroying the desired effects. In group 6, elements of low influence should be eliminated and the time shortened. Subjects in groups 7 and 8 should be analyzed for the elements having the indicated general or special influence and the time increased if it seems probable that increase in time would increase the return value from the subject, providing also, in the case of group 8, that emphasis is desirable on the special tendency indicated.

Making the adjustments to the influences investigated in the light of these interpretations, holding in mind that the purpose is to both increase the total return from the curriculum and reshape the emphasis to meet more nearly the expressed needs (more emphasis on home-making, citizenship and harmless enjoyment, in this order), the following results were obtained:

Literature: Time—lessened somewhat from three years;

Motivation—general.

History of Literature: Time—no change;

Motivation—general.

Algebra: Time—lessened slightly;

Motivation—economic.

In general, women should be discouraged from taking this subject.

¹ In the interpretations following, any adjustments in motivation will be necessarily based on the principle that a subject taught as a general subject and showing a special tendency toward the development of a certain value would develop that tendency to a greater extent if the development of the tendency were made the primary aim of that subject.

Geometry: Same as for Algebra.

Commercial Arithmetic: Time—increased considerably if economic motivation would seem to warrant;

Motivation—economic except for women teachers; for these, home-making.¹

Latin: Eliminate.

English Grammar: Time—lessened slightly;

Motivation—for men teachers, economic; for women teachers, citizenship and home-making; for unclassified women, citizenship; for home-makers, home-making.

Composition: Time—lessened considerably;

Motivation—for men teachers, economic; for women teachers, citizenship; for home-makers, home-making.

General History: Time—lessened slightly;

Motivation—general. Citizenship values might well be emphasized for home-makers and good-will for unclassified women.

United States History: Time—lessened slightly;

Motivation—general. For home-makers, citizenship.

Civics: Time—increased considerably;

Motivation—general.

Physiology: Time—increased considerably if an analysis seems to warrant;

Motivation—for home-makers, women teachers, and farmers, home-making; for others, general.

Unclassified women should be discouraged from taking this subject.

Botany: Time—no change;

Motivation—home-makers and unclassified women, enjoyment; for farmers, home-making; others should be discouraged from taking it.

Physiography: Time—eliminated, except perhaps for farmers;

Motivation—for farmers, home-making.

¹ The value of suggestion of varying lines of motivation for different groups according to occupational expectancy is conditioned by the feasibility of individual motivation in the small classes of the small high school through use of such devices as special reports and outside reading.

Manual Training: Time—increased considerably;

Motivation—home-making.

Domestic Science: Time—increased considerably;

Motivation—home-making.

Physics: Time—no change;

Motivation—for farmers, enjoyment and economic; for unclassified men, economic; other groups represented should be discouraged from taking it.

Geography: Time—no change;

Motivation—for farmers, home-making; for men teachers, good-will; for unclassified men, good-will and citizenship; for women, general.

The returns seem to be very low for women teachers and home-makers.

Art: Time—increased considerably if home-making tendency can be kept in proportion;

Motivation—home-making.

Music: Time—same as for art;

Motivation—home-making and enjoyment.

Since more than a third of the value received from the high-school course seems to come from those influences which may be considered by-products, greater emphasis than has been given in the past should be placed upon these phases of school life. Attention in general may be called to the good-will development tendency of opening exercises, the high general effects of social affairs, athletics, and association with teachers and students, the good-will tendency of grading and recitation systems, and the citizenship tendency of the system of school government, scholarship contests, and debating. In particular, students expecting to become farmers should be encouraged to take part in social affairs, scholarship contests, and school government to bring up the special lack in citizenship values. For the same reason unclassified male students should be encouraged in debating.

The time released by recommended decreases should be somewhere nearly offset by that required for recommended increases, leaving the time created by recommended eliminations (Latin and physiography, two and one-half years) for some subject or subjects

not previously given. In choosing these, home-making, citizenship, and enjoyment values should be considered in the given order.

Circumstances have made the follow-up and application of this study to the Wabash County situation impracticable. Rather, therefore, than for its particular value statistically, the work is presented as a possible method of tapping a vast reservoir of guiding information for educational practice, i.e., the opinions of the individuals developed.